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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,572	12/05/2001	Sang-Ho Lee	205,414	3452

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EXAMINER

NGUYEN, CAM N

ART UNIT PAPER NUMBER

1754

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/007,572

Applicant(s)
Lee et al.

Examiner
Cam Nguyen

Art Unit
1754



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 5, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 6) ☐ Other:

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DETAILED ACTION

Claim Objections

1. Claims 2, 4, & 6-13 are objected to because of the following informalities:
 - A. In claim 2, lines 2-3 of step (a), “which comprises” should be changed to --comprising--.
 - B. In claim 2, line 5 of step (a), “phosphor” should be changed to --phosphorus--.
 - C. In claim 2, line 5 of step (a), --component-- should be inserted after “phosphor”.
 - D. In claim 2, line 6 of step (a), -- , -- should be inserted after “support”.
 - E. In claim 2, line 6 of step (a), a comma “ , ” before “follow” should be deleted.
 - F. In claim 2, line 1 of step (b), “titania” should be --titania support--.
 - G. In claim 2, line 1 of step (f), “forming a catalyst body” should be deleted.
 - H. In claim 2, line 3 of step (f), --to form a catalyst body-- should be inserted after “the dried structure”.
 - I. In claim 4, line 3, --an-- has been inserted before “anatase”.
 - J. In claim 6, line 2, “is added” should be --added--.
 - K. In claim 7, line 2, “the ball mill” should be --a ball mill--.
 - L. In claim 8, lines 2-3, --a-- should be inserted before “weight ratio”.
 - M. In claim 9, line 2, “use of” should be changed to --using--.
 - N. In claim 10, line 2, “use of” should be changed to --using--.
 - O. In claim 11, line 2, “carried” should be --carried out--.

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P. In claim 12, line 2, "use of" should be changed to --using--.

Q. In claim 13, line 2, "carried" should be --carried out--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112 (Second Paragraph)

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Regarding claim 2, step (d), recitation of "active metal components" is unclear as to what components applicants considered "active metal components" of all the metal components listed in the claim. Thus, renders the claim vague and indefinite.

B. Regarding claim 7, lines 2-3, recitation of "2-3 um particles amount to 40-60 vol%" is unclear as to applicants intend. Thus, renders the claim vague and indefinite.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

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harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-6, 8, & 13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-7, 9, 11, & 13 of U.S. Patent No. 6,602,818 B2 (hereinafter Pat '818). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons:

With respect to the instant catalyst claim 1, it is considered the claimed catalyst is the same as the catalyst disclosed in the Pat '818 (claim 13) because both catalysts contain the same metal components, except for the "sulfur component", which is not being recited in the instant claim 1. However, it is considered an extra "sulfur component" disclosed in the Pat '818 is not being excluded due to the phrase "comprising" in the instant claim 1. Both catalysts contain the

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same vanadium and tungsten concentrations, except for the nickel and molybdenum concentrations are ^{slightly} ~~slight~~ different, but they both fall within the disclosed ranges. With respect to the claimed support component and its concentrations, while the Pat '818 does not recite the alumina and titania concentrations, it is inherent that the support material disclosed in the Pat '818 contain the same metal concentrations because both the instantly claimed support and the disclosed support are the same.

With respect to the instant method claims 2-6, 8, & 13, it is considered the claimed method is the same as the method disclosed in the Pat '818 (claims 1, 3-7, 9, & 11) because both methods disclose the same process steps, except for the extra "silicon component" and "iron component", which is not disclosed in the Pat '818. However, these components are not being excluded due to the "comprising" phrase in the claim 1 of Pat '818. Note that the instantly claimed metal concentrations, process conditions such as temperature range, time, etc., and tungsten:titania weight ratios, acid amounts, etc. are met by the reference since they fall within the disclosed ranges.

Allowable Subject Matter

6. Claims 1-15 are not being rejected under the art rejection because they contain allowable subject matter. The following is a statement of reason(s) for allowance of the claimed subject matter.

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As concern with claim 1, the prior art does not disclose or fairly suggest a catalyst comprising the specified claimed metal components in combination with the metal concentrations.

As concern with claims 2-15, the prior art does not disclose or fairly suggest a method of preparing a catalyst comprising pretreating a spent catalyst comprising the specified metal components in combination with the metal concentrations.

There is no motivation to combine the teachings of the references together.

Citations

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ku et al. (US Pat. 6,171,566 B1), Garcin et al. (US Pat. 5,827,489), Sefton et al. (US Pat. 4,861,565), Courty et al. (US Pat. 4,207,169), Dupin et al. (US Pat. 4,602,000), Vogel et al. (US Pat. 4,490,483), & Wiewiorowski (US Pat. 4,666,685) are cited for related art.

Conclusion

8. Claims 1-15 are pending. Claims 1-15 are rejected. No claims are allowed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Cam Nguyen, whose telephone number is (703) 305-3923. The

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examiner can normally be reached on M-F from 8:30 am. to 6:00 pm, with alternative Monday off.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 (before finals) and (703) 872-9311 (after-final).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in cursive script, appearing to read "Cam Nguyen", written over a horizontal line.

Cam Nguyen
Patent Examiner

Nguyen/cnn *cnn*

September 27, 2003

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